# Tsunami Evacuation Zone Maps – Cautions and Additional Information

## Note 1:

Remain at least 100 feet away from inland waterways and marinas connected to the ocean due to wave surges and possible flooding.

#### Note 2:

If possible, remove or deploy vessels to deep water (at least 200 fathoms).

# Note 3:

Structural steel or reinforced concrete buildings of six or more stories provide increased protection on or above the third floor.

## Note 4:

The evacuation zone is a guideline and should be considered the <u>minimum</u> safe evacuation distance.

# Note 5:

These maps do not consider the destructive effects of a locally generated tsunami. If you feel shaking, move inland immediately, well away from the evacuation zone.

Layer Name: Tsunami Evacuation Zones

File Name: TSUNEVAC

Layer Type: Polygon

Status: Complete

Geog. Extent: Islands of Kauai, Oahu, Molokai, Lanai, Maui and Hawaii

Projection: Universal Trans Mercator, Zone 4 (Meters)

Datum: NAD 83

Description: Tsunami Evacuation Zones for the islands of Kauai,

Oahu, Molokai, Lanai, Maui and Hawaii

Source: Island of Hawaii: Pacific Disaster Center (PDC), 1998.

Island of Oahu: City and County of Honolulu, 2010.

Islands of Molokai, Lanai, Maui: Pacific Disaster Center (PDC), 2013.

Island of Kauai: County of Kauai, 2014

History: Island of Kauai:

2013 Kauai Tsunami Evacuation Zones - Kauai Civil Defense Agency - Tsunami evacuation zones have been updated for Kauai. These zones were developed using updated scientific techniques and technology, and were produced in conjunction with County Public Safety officials. Please contact <a href="mailto:civildefense@kauai.gov">civildefense@kauai.gov</a> for additional information.

Please also see Kauai Tsunami Evacuation Zone metadata – KauTsunEvac.shp.xml.

State GIS Program projected the data from Web Mercator into UTM Zone 4.

#### Island of Oahu:

City and County of Honolulu, Honolulu Land Information System (HoLIS).

These new maps were developed using updated scientific techniques and technology, and were produced in conjunction with County Public Safety Officials. In many instances the new data identifies locations with an increased tsunami hazard risk; review these new maps NOW and be prepared for the next tsunami. If you have any questions or comments about the new maps, please e-mail: <a href="mailto:tsunamiready@honolulu.gov">tsunamiready@honolulu.gov</a>.

State GIS Program projected the data from State Plane Zone 3 into UTM Zone 4.

## Island of Maui:

Received update for Maui County from Pacific Disaster Center, August 2013.

# Island of Hawaii:

(Text written by PDC Staff, 1998):

Tsunami evacuation layers for the [islands of Hawaii and Kauai] were digitized from Tsunami Evacuation Zone proof maps provided by the

State of Hawaii Civil Defense, and published in County Telephone Directories by GTE in 1991. These maps were produced by the Joint Institute for Marine and Atmospheric Research, at the University of Hawaii, in cooperation with the State of Hawaii Civil Defense System. Data from these maps were digitized in the GIS program Arc View Version 3.0a using features from island coastlines, roads, and the USGS 7.5 minute digital raster graphics (DRGs). Specific distances given on the maps (for example: "1900 feet from Farrington Highway") were incorporated into the digitization. Where no distances were given, evacuation zone boundaries were estimated by topographical characteristics, or approximated using surrounding features such as roads. In cases where evacuation zone boundaries bordered roadways, selected roads from state DLG road layer were extracted into the tsunami evacuation shape file for accuracy. No details of scale accompanied the paper proofs.

Coastline and evacuation zone shape files for each island were then made into coverages using ArcInfo Version 7.1.2, which were subsequently appended into a single coverage for editing. Arcedit was used to eliminate all dangling nodes, intersections, etc.

Tolerances were set to minimize the alteration of zone boundaries. Topology was built for each island, polygons labeled, and polygon attribute tables created. Each polygon is associated with a particular evacuation map, with the exception of two polygons on Oahu maps which are areas of high ground (map #7), and water (maps # 18-19) within evacuation zones.

A coverage for the State was created from appended individual island coverages in ArcInfo.

## Other:

Merged all islands into one layer by OP Staff, August 2013, February 2014.

No information for fields MAPNUM and MAPNAME on Oahu or Kauai.

Attributes: Polygons:

ISLAND Island Name

MAPNUM Map # of evacuation zone as it appears in the county telephone directory.

MAPNAME Geographic area covered by each numbered evacuation zone map, as it

appears in the county telephone directory.

ZONE "1" = tsunami evacuation zone

Contact: Hawaii Statewide GIS Program

Office of Planning, State of Hawaii PO Box 2359, Honolulu, Hi. 96804

(808) 587-2846

email: gis@dbedt.hawaii.gov